

## **Meeting 1/19/06      SRC Subcommittee on Laser Safety**

Present: Larry McLouth (EHS), Robert Schoenlein (MSD), Eddie Ciprazo (UCB), Joel Ager (MSD), Neil Landau (BSO), Marc Hertlein (CDS), Paul Blodgett, (EH&S)

### **Agenda:**

- (1) Update on EH&S response to BSO on recent laser safety issues (Larry)
  - laser inventory – required data, verification etc.
  - field inspection of all LBNL laser labs
  - laser safety consultant (interim LSO?)
  - task force on interlocks
- (2) policy recommendation for treatment of laser amplifiers
- (3) Discussion of proposed policy defining LBNL laser safety responsibilities on campus
- (4) JHQ Laser Questions – two issues
  - (a) software coding problems (associated with previous changes to JHQ) have generated incorrect training requirements for a significant number of laser users
  - (b) Larry McLouth will propose further revisions to the JHQ laser questions (to be circulated), please refer to the Nov. 16, 2005 meeting minutes

### **Minutes:**

- (1) Larry provided a brief update of the EH&S response to DOE/BSO regarding laser safety
  - (i) laser inventory: the present plan is to include only class IIIb and IV lasers. Larry will come up with a report/recommendation on what parameters to include in the formal inventory and will discuss with Neil Landau.
  - (ii) field inspections: MSD is finished, CSD is next. Inspections have been going well, but progress depends on available time and manpower.
  - (iii) task force on interlocks is still to be assembled (right now, other issues are more pressing)
  - (iv) consultants: Mark Ludwig and Ken Barat (LSOs from LLNL) will be available. Mark will work primarily on the walkthroughs/inspections, and Ken will concentrate on AHD approvals and renewals. The goal is to hire an LSO within 3 months.
  - (v) it was also mentioned that AHDs entered into the electronic database are not official until they are reviewed.

#### **(2) Laser Amplifiers.**

The committee approved the proposed policy on laser amplifiers (appended to this document). It was recommended that one column heading “Device” be changed to “Hazard Description” as a way to clarify that the table is not intended to list multiple devices with equivalent or lesser hazards, but rather to list the most severe hazard in each category.

Neil commented that from BSO’s perspective, they would like to have a clearly defined policy regarding amplifiers that everyone abides by.

Larry commented that a table of light hazards could be easily included in the AHD template (electronic), but would not be linked to the inventory (until sometime in the future). He will also forward the proposed Light Hazard table to LLNL LSOs for input.

(3) Further discussion of the proposed LBNL policy regarding LBNL laser safety responsibilities on campus is tabled pending the expected issue of new safety standards from DOE (10CFR 851)

(4) Larry proposed changes to the laser safety questions on the JHQ. It was pointed out that the proposed changes are nearly identical to the revised questions approved and recommended by the Laser Safety Subcommittee at the 11/16/05 meeting (for the LBNL-JHQ), but questions (1) and (4) from that recommendation are no longer necessary. Apparently it is no longer necessary to identify people who do not work with lasers, but may need training to identify and understand basic laser warning signs (question 1). This is now covered in the mandatory EH&S introductory class. Training for supervisors also covers supervision of laser users, so it is no longer necessary to separately identify laser supervisors (question 4).

Everyone should be aware that there are coding problems in the present JHQ that result in incorrect training requirements for laser users. Some classes that should be required incorrectly show up as being optional. Laser supervisors need to be aware of this. Once the coding problems are corrected, supervisors need to have laser users (with incorrect training profiles) re-take the JHQ.

Approved by Laser Safety Subcommittee on 1/19/06

The laser inventory should include only true lasers. Specifically, devices that are designed as (or will be used as) optical resonators. Such devices should meet all of the following criteria:

- Under these criteria, multipass amplifiers, parametric amplifiers, frequency converters etc. would not be considered lasers. On the other hand, regenerative amplifiers would be classified as lasers (for inventory purposes) if the user ever intends to operate them as a resonator. This is typically done during construction, servicing, or maintenance. However, if the user never intends to operate them in this configuration, they may choose to exclude them from the laser inventory.

### Example – Light Hazard Table

[illegible]